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PATENT Attorney Docket No. 209259

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Hattori et al.

Application No. 09/781,703

Art Unit: 1651

Examiner: I. Marx

Filed: February 12, 2001

For:

STABLE PQQ-DEPENDENT GLUCOSE DEHYDROGENASE

COMPOSITION

AMENDMENTS TO CLAIMS MADE IN RESPONSE TO OFFICE ACTION DATED MAY 1, 2002

(Deletions are indicated by crossed-out text, while insertions are indicated by underlined text)

- 1. (Amended) A stable lyophilized PQQ-dependent glucose dehydrogenase composition comprising a PQQ-dependent glucose dehydrogenase together with (i) at least one compound selected from the group consisting of aspartic acid, glutamic acid, α -ketoglutaric acid, malic acid, α -ketogluconic acid, α -cyclodextrin and their salts and (ii) an albumin, wherein the PQQ-dependent glucose dehydrogenase content is 100 to 2000 kU per gram of the composition.
- 3. (Amended) A method for stabilizing a PQQ-dependent glucose dehydrogenase, wherein the said method comprising (a) providing a PQQ-dependent glucose dehydrogenase is made to coexist and (b) forming a composition comprising the PQQ-dependent glucose dehydrogenase together with (i) at least one compound selected from the group consisting of aspartic acid, glutamic acid, α-ketoglutaric acid, malic acid, α-ketoglucosic acid, α-cyclodextrin and their salts and (ii) an albumin, wherein the PQQ-dependent glucose dehydrogenase content is 100 to 2000 kU per gram of the total components calculated on a dry basis.
- 4. (Amended) The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase is made to coexist further present in the composition with a buffer.



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STABLE PQQ-DEPENDENT GLUCOSE DEHYDROGENASE

COMPOSITION

PENDING CLAIMS AFTER AMENDMENTS MADE IN RESPONSE TO OFFICE ACTION DATED MAY 1, 2002

- 1. A stable lyophilized PQQ-dependent glucose dehydrogenase composition comprising a PQQ-dependent glucose dehydrogenase together with (i) at least one compound selected from the group consisting of aspartic acid, glutamic acid, α-ketoglutaric acid, malic acid, α-ketogluconic acid, α-cyclodextrin and their salts and (ii) an albumin, wherein the PQQ-dependent glucose dehydrogenase content is 100 to 2000 kU per gram of the composition.
 - 2. The composition according to claim 1, which further contains a buffer.
- 3. A method for stabilizing a PQQ-dependent glucose dehydrogenase, said method comprising (a) providing a PQQ-dependent glucose dehydrogenase and (b) forming a composition comprising the PQQ-dependent glucose dehydrogenase together with (i) at least one compound selected from the group consisting of aspartic acid, glutamic acid, α -ketoglutaric acid, malic acid, α -ketogluconic acid, α -cyclodextrin and their salts and (ii) an albumin, wherein the PQQ-dependent glucose dehydrogenase content is 100 to 2000 kU per gram of the total components calculated on a dry basis.
- 4. The method according to claim 3, wherein the PQQ-dependent glucose dehydrogenase is present in the composition with a buffer.